Determination of Public Land (Rangeland) Health for 64538 PECOS NORTH FLAT 15

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, including Native, Threatened, Endangered and Special Status Species and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Office for implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field Assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on these assessments, it is my determination that public land within the Pecos North Flat 15 allotment, 64538 meets the (1) Upland Sites Standard, (2) Biotic Communities, including Native, Threatened, Endangered and Special Status Species Standard and the Riparian Sites Standard.

/s/ Jerry Dutchover	01/18/2012
Acting Assistant Field Manager	Date

Standards of Public Land Health
Evaluation of 64538 PECOS NORTH FLAT 15 Allotment
[01/21/2011]

The Roswell Field Office conducted rangeland health assessments at 5 study sites within 64538 PECOS NORTH FLAT 15. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64538-MIDDLE RIVER-N017	X			X			X		
64538-RIVER-F178 (*)	X			X			N/A		
64538-SOUTH-F179 (*)	X			X			N/A		
64538-SOUTHWEST-F180	X			X			N/A		
64538-WYLIE-F181	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Pecos North Flat 15, allotment 64538. Ten of these assessed soil site stability, 11 hydrologic functions and 13 for biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on 5 trend plot locations within this allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. These collections were initiated in the late 1970's/early 1980's are scheduled and conducted approximately every 5 to 10 years.

This allotment contains 5,615 acres of public land. The studies are located on a Gravelly CP-2 site, a Sandy loam CP-2 site and on three Loamy CP-2 sites. This is an “I” category allotment.

The (*) indicates that the assessment had one or more indicator(s) rated moderate/extreme or extreme. These indicators are:

- Annual Production
- Invasive Plants
- Reproductive Capability of Perennial Plants

These indicators by themselves are not enough to rate the site as not meeting a standard but may warrant future monitoring. Annual production was rated as Moderate to Moderate to Extreme in the pasture known as River Pasture due to the drought. This pasture also is seeing a strong presence of mesquite invasion, which contributes to reduced capability of annual production and reproductive capability of other perennial plants.

Recommendations: As the majority of the indicators fall in the 'None to Slight' or 'Slight to Moderate' category, this allotment is rated as "Meeting" the standard for Rangeland Health. Continue the rangeland monitoring studies to insure proper stocking rates are maintained and that the perennial grasscover and good plant composition remains. The team recommends that the mesquite and salt cedar populations be mapped, and if warranted, the areas considered for a vegetative treatment. As the public land lay intermingled with private and state lease holdings, it would also be a good opportunity to work with the private land owner and other agencies such as New Mexico State Land Office and Natural Resource Conservation Service (NRCS) to implement the vegetation treatments.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64538-MIDDLE RIVER-N017			
Legal Land Desc	NENE 11 0040S 0250E Meridian 23	Acreage	917
Ecosite	070BY065NM GRAVELLY CP-2	Photo Taken	Y
Watershed	13060003160 HUGGINS		
Observers	ORTEGA & ARNOLD	Observation Date	08/02/2011
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	BCB	Soil Taxon Name	BASCOM
Texture Class	NM644 GR-SL	Soil Phase	BASCOM-RATLIFF
Texture Modifier	NM644 GRAVELLY SANDY LOA		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	0	NOAA Growing Season Precipitation	0
NOAA Avg Annual Precipitation	0	NOAA Avg Growing Season Precipitation	0
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:						

S H	Gullies				X	
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:	Mesquite dominated					
S H B	Compaction Layer				X	
Comments:						
B	Functional/Structural Groups			X		
Comments:	Mesquite dominated with snakeweed and salt cedar in the flood plains located in this pasture.					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants			X		
Comments:	Mesquite					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat				X	
Comments:						

B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat				X	
Comments:						
B	Special Status Species Populations			X		
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	8	2
H	Hydrologic	0	0	1	9	1
B	Biotic	0	0	3	9	1

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	1	10
Biotic		0	3	10

Site Notes: Cattle grazing in this area appears to have no obvious impact (+ or -) on wildlife or Special Status Species habitat or populations at the current level of AUs/AUMs. However, a closer study for these species needs to be done including; updated water samples by NM Environment Department, present/absent surveys need to be conducted; mapping for potential treatment after determining if the treatment thresholds for mesquite have been met; and determine if salt cedar removal or eradication would be effective or not, and may not be cost effective at this time.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64538-RIVER-F178			
Legal Land Desc	NWSW 26 0030S 0250E Meridian 23	Acreage	3374
Ecosite	070BY054NM SANDY LOAM CP-2	Photo Taken	Y
Watershed	13060003100 CIBOLA		
Observers	ORTEGA & MARTIN	Observation Date	08/02/2011
County Soil Survey	NM011 DE BACA	Soil Var/Taxad	
Soil Map Unit	059	Soil Taxon Name	CHISPA
Texture Class	NM011 FSL	Soil Phase	CHISPA-LOS TANOS
Texture Modifier	NM011 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	0	NOAA Growing Season Precipitation	0
NOAA Avg Annual Precipitation	0	NOAA Avg Growing Season Precipitation	0
Disturbances and Animal Use:	Moderate grazing noted		

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns					X
Comments:						
S H	Pedestals and/or Terracettes					X
Comments:						
S H	Bare Ground					X
Comments:						
S H	Gullies					X

Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement					X
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:	Good vegetative cover					
S H B	Soil Surface Loss or Degradation					X
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:	Mesquite					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Mesquite influence					
B	Plant Mortality/Decadence			X		
Comments:	Plant mortality & decadence due to drought.					
H B	Litter Amount					X
Comments:						
B	Annual Production		X			
Comments:	low reproduction due to drought					
B	Invasive Plants		X			
Comments:	Mesquite influence					
B	Reproductive Capability of Perennial Plants		X			
Comments:	Moderate to Extreme rating due to drought.					
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat					X
Comments:						
B	Wildlife Populations					X

Comments:						
B	Special Status Species Habitat					
Comments:	Not applicable					
B	Special Status Species Populations					
Comments:	Not applicable					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	2	8
H	Hydrologic	0	0	1	1	9
B	Biotic	0	3	2	1	5

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	1	10
Biotic	Even though the indicators for Annual production, Invasive Plants and Reproductive Capability of Perennial Plants were each rated as "Moderate to Extreme" departure from the ecological site description- this rating was based on the low levels of precipitation received in this area. All grass species expected for this site are present.	3	2	6

Site Notes: Less than average precipitation, all grass species are present and are moderately grazed, Potential exists for mesquite treatment - would recommend mapping the population here.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64538-SOUTH-F179			
Legal Land Desc	NESW 10 0040S 0250E Meridian 23	Acreage	370
Ecosite	070BY052NM LOAMY CP-2	Photo Taken	Y
Watershed	13060003160 HUGGINS		
Observers	ORTEGA & ARNOLD	Observation Date	08/02/2011
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	RBA	Soil Taxon Name	RATLIFF
Texture Class	NM644 FSL	Soil Phase	RATLIFF-REDONA
Texture Modifier	NM644 FINE SANDY LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	0	NOAA Growing Season Precipitation	0
NOAA Avg Annual Precipitation	0	NOAA Avg Growing Season Precipitation	0
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:						

S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups			X		
Comments:	Mesquite					
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants		X			
Comments:	Mesquite presence					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat				X	
Comments:						

B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					
Comments:	Not applicable					
B	Special Status Species Populations					
Comments:	Not applicable					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	6	4
H	Hydrologic	0	0	0	8	3
B	Biotic	0	1	1	8	1

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	0	11
Biotic		1	1	9

Site Notes: Pasture is mesquite dominated - consider mapping for treatment.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64538-SOUTHWEST-F180			
Legal Land Desc	NWNE 12 0040S 0240E Meridian 23	Acreage	320
Ecosite	070BY052NM LOAMY CP-2	Photo Taken	N
Watershed	13060003160 HUGGINS		
Observers	ORTEGA & ARNOLD	Observation Date	01/21/2011
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	HRB	Soil Taxon Name	HOLLOMEX
Texture Class	NM644 L	Soil Phase	HOLLOMEX-MILNER-REEVES
Texture Modifier	NM644 MOIST LOAMS		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	0	NOAA Growing Season Precipitation	0
NOAA Avg Annual Precipitation	0	NOAA Avg Growing Season Precipitation	0
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	

Comments:						
S H	Gullies					X
Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:	Mesquite common					
S H B	Compaction Layer				X	
Comments:						
B	Functional/Structural Groups			X		
Comments:	Mesquite					
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants			X		
Comments:	Mesquite common					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat				X	

Comments:						
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					
Comments:						
B	Special Status Species Populations					
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	7	3
H	Hydrologic	0	0	1	8	2
B	Biotic	0	0	2	9	0

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	1	10
Biotic		0	2	9

Site Notes: This pasture may be a good candidate area for mesquite treatment.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64538-WYLIE-F181			
Legal Land Desc	NENE 7 0040S 0250E Meridian 23	Acreage	706
Ecosite	070BY052NM LOAMY CP-2	Photo Taken	N
Watershed	13060003160 HUGGINS		
Observers	ORTEGA & ARNOLD	Observation Date	01/21/2011
County Soil Survey	NM644 CHAVES NORTH	Soil Var/Taxad	
Soil Map Unit	PpA	Soil Taxon Name	POQUITA
Texture Class	NM644 L	Soil Phase	POQUITA
Texture Modifier	NM644 LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	0	NOAA Growing Season Precipitation	0
NOAA Avg Annual Precipitation	0	NOAA Avg Growing Season Precipitation	0
Disturbances and Animal Use:			

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills				X	
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground				X	
Comments:						
S H	Gullies					X

Comments:						
S	Wind-scoured, Blowouts, and/or Deposition Areas					X
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff			X		
Comments:						
S H B	Compaction Layer				X	
Comments:						
B	Functional/Structural Groups			X		
Comments:	Mesquite common					
B	Plant Mortality/Decadence				X	
Comments:						
H B	Litter Amount				X	
Comments:						
B	Annual Production				X	
Comments:						
B	Invasive Plants			X		
Comments:	Mesquite common					
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:						
B	Wildlife Habitat				X	
Comments:						
B	Wildlife Populations				X	

Comments:						
B	Special Status Species Habitat					
Comments:						
B	Special Status Species Populations					
Comments:						

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	8	2
H	Hydrologic	0	0	1	9	1
B	Biotic	0	0	2	9	0

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil		0	0	10
Hydrologic		0	1	10
Biotic		0	2	9

Site Notes: This pasture may be a good candidate for mesquite treatment.